



**STANLEY
TOOLS**

"55"
PLANE
AND
HOW TO USE IT

PUBLISHED BY
THE STANLEY RULE & LEVEL PLANT.
THE STANLEY WORKS
NEW BRITAIN, CONN. U.S.A.



Stanley "55" Plane

This Universal Tool is a PLOW, DADO, RABBET, FILLETSTER and MATCH PLANE, a BEADING and CENTER BEADING PLANE, a SASH PLANE and a SLITTING PLANE. It is also a superior MOULDING PLANE and will accommodate cutters of almost any shape and size.

Combining as it does all the so-called "Fancy" Planes, its scope of work is practically unlimited, making the Stanley "55" literally

"A PLANING MILL WITHIN ITSELF."

With the fifty-five cutters furnished with the Plane, the workman can produce all the mouldings most generally used. A further line of forty-one cutters is regularly carried in stock. In addition, cutters to work special forms of mouldings can be made from blanks by the owner himself, or if desired may be ordered from the factory to sketch.

The Plane is nickel plated, is ten inches long and weighs seven and three-quarters pounds.

The regular equipment of cutters furnished with the Plane is illustrated and priced on *page 20*, the forty-one special cutters carried in stock on *page 21*, and a list of repair parts on *page 22*.

It is the purpose of this book to give such instruction in the handling and adjustment of the Plane as will enable anyone with ordinary application, to turn out good work easily and quickly. *In all cuts the Plane is shown as it looks from the front.*

In order to obtain the best results care should be used in handling the Tool, and the following general instructions should be observed in using same under all conditions:

Always slacken the Cutter Bolt before adjusting the cutters.

When raising or lowering the Adjustable Runner on the Sliding Section, first loosen the Thumb Screws which fasten the Sliding Section to the Arms, then slacken the Thimble Check Nuts. Reverse these operations to tighten, after the Runner is correctly adjusted.

In order that the work will always be true, it is important that the Fences be kept at right angles to the edge of the cutter or parallel with the runners.

In placing the Fences on the Arms use the upper holes whenever possible, as one has more command over the Tool when the Fences are so located.

Keep the Cutters well sharpened, especially those used in working fancy mouldings.

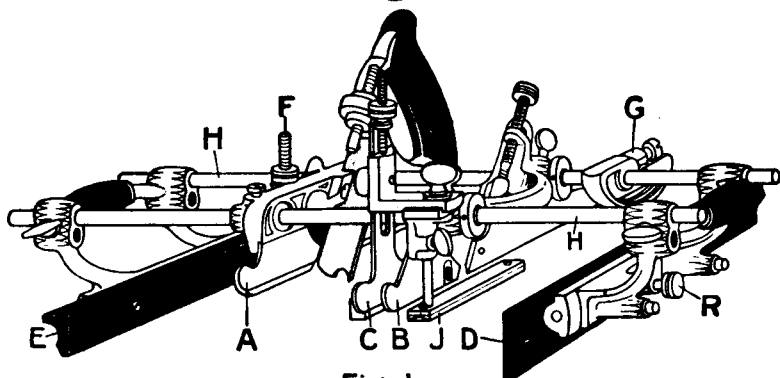


Fig. 1

THE PLANE.

A view of the Plane is shown in Fig. 1, the important parts being designated by letters.

MAIN STOCK A carries the Cutter, Cutter Adjustment and Cutter Bolt, Slitting Tool, Depth Gauge and Handle, and provides a bearing for one side of the cutter.

SLIDING SECTION B has an Adjustable Steel Runner and gives a bearing for the other side of the cutter. It slides on Arms *H* secured in the Main Stock. The adjustable runner can be raised or lowered so that cutters can be used having one side higher or lower than the side in the Main Stock.

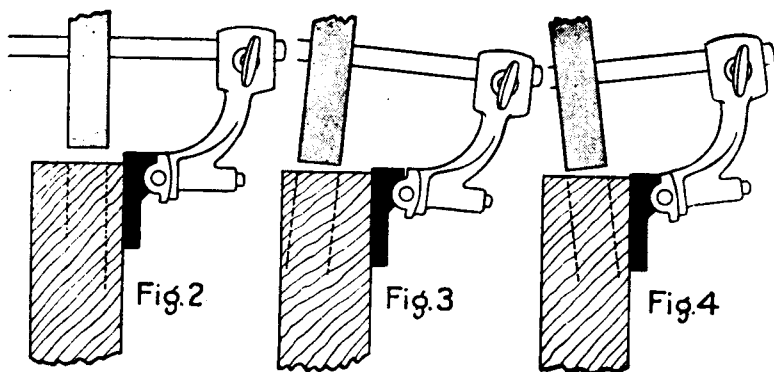
AUXILIARY CENTER BOTTOM C forms an additional bearing and is used in connection with irregular shaped cutters, also as a depth gauge for the matching cutters. It can be adjusted for width or depth and when required should be attached to the Sliding Section *B*.

FENCES D and E can be used on either side of the Plane and the rosewood faces tilted to any desirable angle up to 45 degrees. The rosewood face on fence *D* may be regulated by screw *R* for extra fine adjustment. Fence *E* is machined on the outside so that when reversed it gives an extended reach for center beading wide boards.

ARMS H are used to carry the Fences and Sliding Section at the position desired. Two sets of arms (one 8½ and one 4½ inches long) are provided with each Plane.

CAM REST G can be fastened on either the front or back arm between the Sliding Section and the Fence *D* and acts as a rest when the Fences are wide apart as in center beading. When the Auxiliary Center Bottom is in use, the cam rest provides additional support when required and should be placed on the rear arm.

GAUGES F and J are fully explained on the following pages.



THE FENCES.

The Fences are of metal with adjustable Rosewood Faces attached to form the bearing surfaces, and are used to guide the Plane along the work.

The Plane should stand at an exact right angle to the edge of the work as in Fig. 2. To insure this the rosewood faces must be adjusted to come parallel with the *side* of the cutter.

If the Plane is tipped as shown in Fig. 3 the groove will work away from the fence as it goes deeper, and owing to the wood acting as a wedge between the cutter and the fence, the Plane will bind.

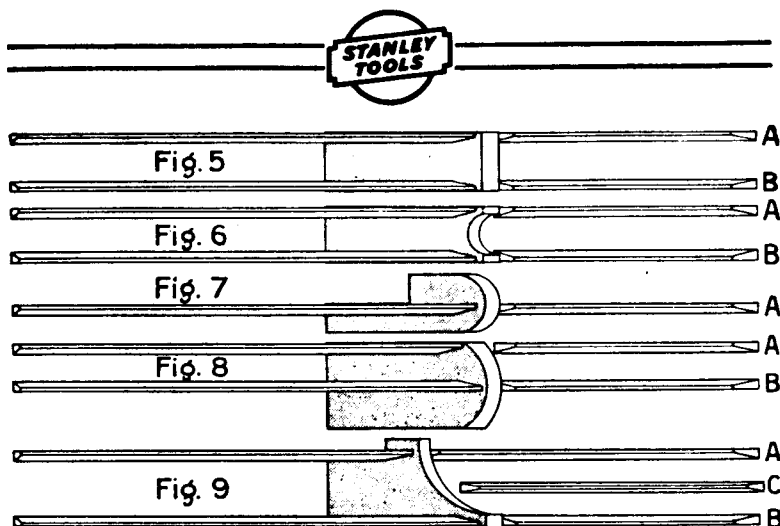
If tipped as shown in Fig. 4 the groove will work towards the fence as it goes deeper, thus forcing the fence away from the wood.

The grooves made are indicated by the dotted lines in the two figures, and show that good work is impossible under these conditions.

The Rosewood Faces are attached to the metal Fences by means of two machine screws, consequently any slight variation from a right angle can be readily overcome by simply loosening these screws and changing the angle of the faces—taking care to see that the screws are tightened when the faces are properly adjusted. Special forms can be attached to the rosewood faces if desired.

The Fences are provided with upper and lower arm holes. The upper holes allow the Fences to slide under the cutter to regulate the width of cut required—as in rabbeting. The lower holes can be used where the work is such as to require a narrow Fence.

It is advisable to use both fences where possible as by so doing the Plane may be kept true to the work with slight effort. Where only one fence is in use, care should be taken to see that it is kept close up to the edge of the stock being worked.



THE RUNNERS.

The Runners are thin plates of steel attached to the Main Stock and the Sliding Section, and are used to form the bearings for the cutter.

For the purpose of illustrating their proper position when in use, a bottom view of these Runners set to use cutters of various forms is shown—A being the Main Stock, B, the Sliding Section, and C, the Auxiliary Center Bottom, the use of which is described below :

When a square edge cutter or beading cutter (*Figs. 5 and 6*) is used, the Main Stock and Sliding Section Runners are both required. With the fluting cutter (*Fig 7*) the Main Stock Runner only is needed, the cutter being recessed on one side so that the Runner will come to its highest point. In using a round cutter (*Fig. 8*) both Main Stock and Sliding Section Runners are required, the Sliding Section being set to the centre of the cutter and its adjustable runner set to govern the thickness of shaving to be removed.

The Auxiliary Center Bottom is not required for the cutters shown in *Figs. 5 to 8*.

With an "Ogee," or any cutter that has an irregular cutting edge, with one side extending below the other (*Fig. 9*), the Auxiliary Center Bottom should be used to form an additional support.

This Auxiliary Center Bottom can be readily adjusted sidewise by means of the Angle Iron to which it is attached, and for depth by the adjusting nut on its stem.

Where the bearing surface for the Auxiliary Center Bottom is one-quarter of an inch or more in width an additional support called a Sole Plate is furnished, to be attached to the bottom of same.

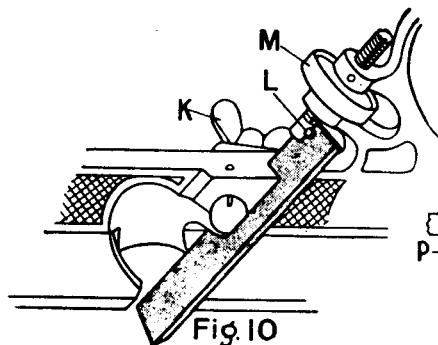


Fig. 10

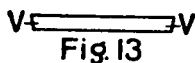


Fig. 13

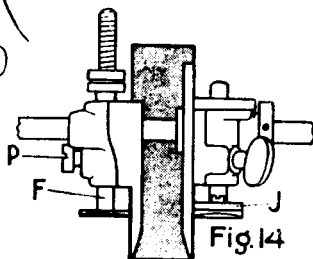


Fig. 14



Fig. 11

Fig. 12

CUTTERS AND DEPTH GAUGES.

Near the upper end of each Cutter a slot or hole is made to engage with a pin located near the end of the adjusting Screw on the Main Stock.

The proper way to set the Cutter is as follows :

First—loosen Cutter Clamp *K*, (*Fig. 10*) and place Cutter in position with slot on pin *L*. Adjust by means of adjusting nut *M*, and tighten cutter clamp *K*, then bring up the Sliding Section and secure it as required.

Care should be used in adjusting the Sliding Section where the cutter is to be used its full width, to see that the side of the cutter extends beyond the runner only enough to give clearance (*Fig. 11*). The channel in which the cutter rests in the Main Stock regulates this on the right hand side.

If too much clearance is given (*Fig. 12*) through allowing the sides of the cutter to project too far beyond the Sliding Section runner *B*, the cutter will scrape the sides of the groove making a rough uneven cut, as well as causing the Plane to work hard. The sides *V* (*Fig. 13*) of the cutter are given only a slight bevel which is for clearance only and not for cutting.

As a rule it is best whenever possible, to make use of both depth gauges as shown in *Fig. 14*, setting gauge *F* on Main Stock first and then gauge *J* on Sliding Section. Gauge *F* should always be clamped with the slotted screw *P* to securely lock it in position.

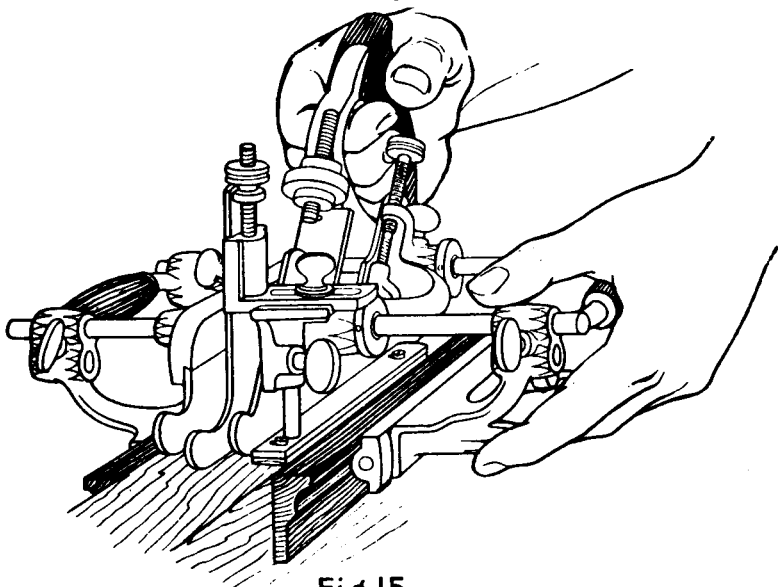


Fig.15

HOW TO HOLD THE PLANE.

One of the most important points to be observed for the successful working of the Plane, is the way in which it is held, and the following explanation will enable the user to understand the best way in which this may be done.

As the Plane is held in both hands (*Fig. 15*), the tendency with the beginner is to push as much with the left hand as with the right, the result being that the Plane will be drawn over to the left away from the stock, making good work impossible.

The Plane should be pushed forward with the right hand only, the left hand being used to keep it steady and hold the Fence up to the work. The palm of the left hand should rest on the Fence Handle, the thumb passing over and resting on the Front Arm—the fingers being against the lower part of the Fence. The natural tendency of the hand when holding the Plane in this way is to guide it correctly.

The directions already given in regard to setting the different parts and the various adjustments of the Plane, will apply for all kinds of work that it may be used for.

In the following pages will be found complete directions for operating the Plane, beginning with the simple rabbet, followed by the more complicated mouldings.

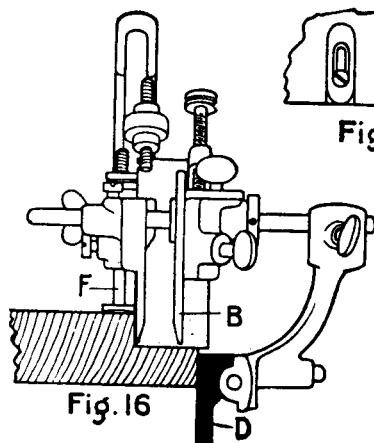


Fig. 16

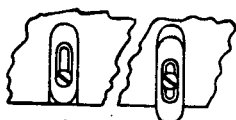


Fig. 17

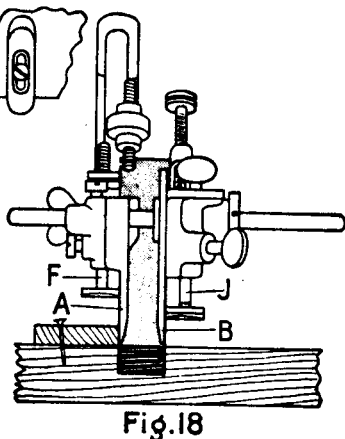


Fig. 18

RABBET, FILLETSTER AND DADO.

RABBET AND FILLETSTER. For this work insert a cutter of greater width than width of rabbet wanted and move Sliding Section *B* to about one-quarter of an inch inside the outer edge of rabbet, as an extra support. This will bring the Sliding Section inside the edge of the cutter.

Attach Fence *D* putting same on the arms through the upper holes, so that it will slide under the cutter the required distance to give the width of rabbet wanted (Fig. 16). Depth Gauge *F* regulates the depth of the rabbet.

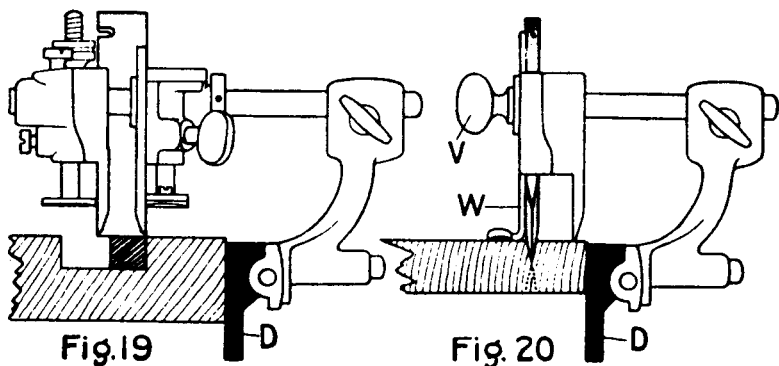
DADO. As the Plane has to work across the grain in making a Dado, Spurs are necessary in front of the sides of the cutter to score the wood and thus prevent the tearing of the stock.

These spurs are set in the sides of the Main Stock *A* and Sliding Section *B*. Loosen the screws securing them, so that spurs will drop into position (Fig. 17) with cutting edges extended beyond the runners fully the thickness of shaving to be removed, and tighten screws. Insert a plow cutter of the same width as width of Dado wanted, and move Sliding Section *B* up to cutter until spur is in line with its outer side. When so located there will be no danger of the cutter tearing the side of the groove.

Insert depth gauge *J* in Sliding Section as shown in Fig. 18 and set it to regulate the depth of Dado.

Nail a strip of wood (batten) on the board in which the Dado is to be cut for gauging its position. If batten is of uniform thickness and nails driven so as not to interfere, depth gauge *F* can also be used by allowing for the thickness of batten when setting the gauge for depth.

The Fences are not required and should be removed.



PLOW AND SLITTING.

PLOW. When used as a Plow, set the Sliding Section Runner as instructed in directions for setting cutters on page 6.

The width of grooves are in no way confined to the width of the cutters supplied, as it is possible to make a groove of any width by working it twice or more, one cut running into the other. In making these extra wide grooves it is necessary that the fence should first be set to work to the side of the groove which is farthest from the edge of the wood against which this fence is to bear (*Fig. 19*). If this is not done, there will be difficulty in keeping the fence up to the wood when running the second part of the groove.

It is also best to use a cutter of comparatively narrow width when making extra wide grooves, instead of a cutter nearest to the width of the finished groove, as in making the last cut, the cutter has a tendency to "run off" where there is only a narrow strip left to be taken from the side of the groove. The two depth gauges should be used in work of this kind, or the bottom of the groove may finish unevenly unless more than ordinary care be taken.

SLITTING. (*See Fig. 20*). For cutting strips from thin stock a cutter is provided which will perform the work more rapidly than if a saw were used.

The Slitting-Cutter is inserted in a slot on the right-side of the Main Stock just forward of the handle.

Depth Gauge *W* is placed over the blade and both cutter and gauge fastened by the thumb screw *V*.

Fence *D* gauges the distance of the cut from the edge of the board.

Thicker boards can be cut by first running the cutter partly through on one side, reversing the stock, and completing the cut on the other side.

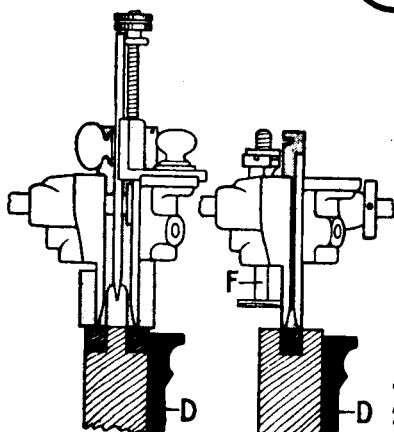


Fig. 21

Fig. 22



Fig. 23

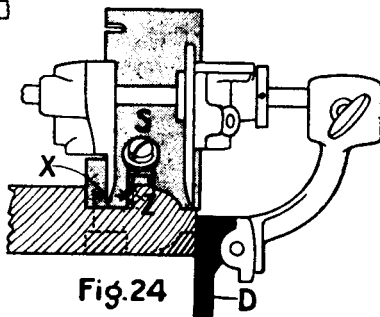


Fig. 24

MATCHING AND SASH MOULDING.

MATCHING. To make a tongue on boards of any thickness from $\frac{3}{4}$ inch to $1\frac{1}{4}$ inches, a Tonguing Tool or Cutter is provided.

This cutter is recessed on one side so that if used on either a thin or thick board the runners may still be kept on the wood when regulating position of tongue. (Fig. 21).

The Auxiliary Center Bottom is used as a depth gauge to regulate the height of tongue. The position of the tongue is regulated by Fence *D*.

To make the groove use the $\frac{1}{4}$ inch plow cutter. Fence *D* regulates the distance of groove from face of board and gauge *F* the depth. (Fig. 22).

If double tongued joints are wanted as in Fig. 23 they may easily be worked by using plow cutters to make both members.

SASH MOULDING. For this work a cutter of a design known as "Ovolo" is provided which carries its own depth gauge *S*, secured in the required position by means of a set screw on the gauge (Fig. 24).

The moulding can be worked on a strip of wood of the necessary width and thickness by cutting one side first, then reversing the strip and repeating the operation on the other side. When worked in this way the depth *X* of the rabbet of the moulding is regulated by the fence *D* and the width *Z* by the gauge *S* on the cutter. The other portions of the moulding are fixed by the shape of the cutter.

A more satisfactory way, especially for ease in holding the stock, is to work the moulding on the two sides of a board of suitable thickness. The depth *X* will here be obtained by cutting off with a slitting cutter or saw.

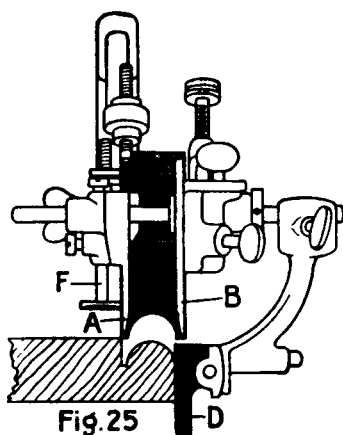


Fig. 25

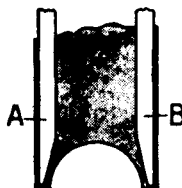


Fig. 26

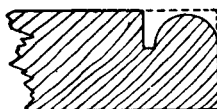


Fig. 27

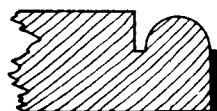


Fig. 28

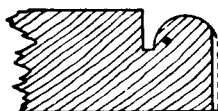


Fig. 29

BEADING.

Fig. 25 is an illustration of the Plane with a beading cutter inserted, and the Fence properly set for the working of an ordinary bead.

To cut a bead on the edge of a board.

Bring up the Sliding Section *B* so that the bevel of the runner will allow the cutter to take off a shaving of the same thickness as that on the side in Main Stock *A*. (*Fig. 26*). This bevel will allow only the thinnest shaving possible to be taken off by the part of the cutter forming the quirk.

The Fence must be set so that it comes exactly to the inner point of the cutter as shown in illustration *Fig. 25*. This will bring the outside face of the bead to the edge of the board. Set depth gauge *F* on the Main Stock so as to allow the bead to be worked down to the proper depth below the surface of the wood.

It is always advisable, when working beads and similar mouldings to finish them well below the surface of the wood, so that any subsequent cleaning off the surface will not change their form. (*Fig. 27*).

The bead should appear in section as *Fig. 27*, the round gradually merging into the straight without a break.

The first attempt may result in a bead as shown in *Fig. 28*, necessitating the planing off of the edge (see dark line) to form a perfect bead; or worse still, as in *Fig. 29*, which cannot be made into a properly shaped bead. The fault in the first instance is caused through the Fence not being brought up to the point of the cutter; in the second instance through its being set inside the point of the cutter.

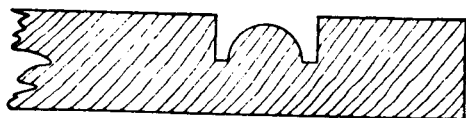


Fig. 30

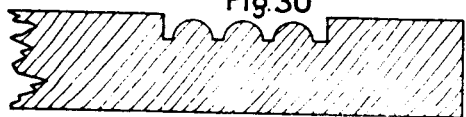


Fig. 31

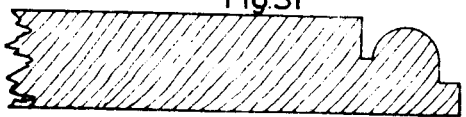


Fig. 32

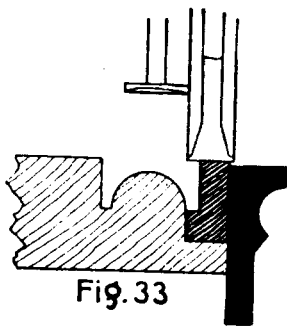


Fig. 33

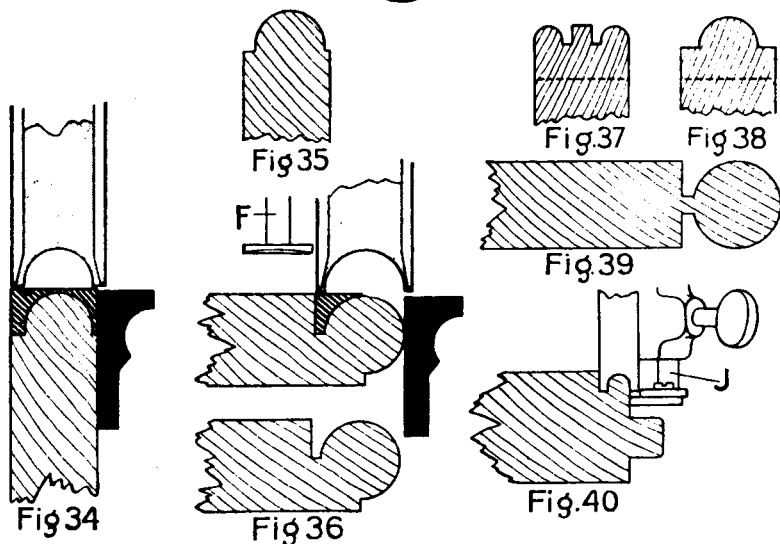
BEADING CONTINUED.

Fig. 30 shows the section of a center bead. It can be worked at any required distance up to eight inches from the edge of the board by using the longer set of arms regularly furnished with the Plane and reversing the fence. Extra long arms can be furnished on special order which will permit of a bead being worked at even a greater distance than eight inches from the edge of the board.

When making a bead near the edge of a board, the Cam Rest is not necessary but when beads are made at any distance from the edge it will be found convenient and of great assistance as it will tend to prevent the fence from sagging. It should be placed on the front arm.

Fig. 31 is a section of Reeds worked in the same way as the bead in Fig. 30 by using the reeding cutters for small sizes, and by working a series of centre beads for larger sizes. When working center beads, the bead which will be farthest from the edge against which the Fence bears should be worked first. If this is not done there will be difficulty in working the succeeding beads so that they will properly connect with those first made.

Fig. 32 shows a section of the "Torus" bead. This is easily worked by first forming the center bead at the required distance from the edge of the board, and working the square or quirk with one of the narrow plow cutters. This cutter should always be the full width of the square, so that no further work is needed to level it down. A section of the Plane as set to work the square is shown in Fig. 33.



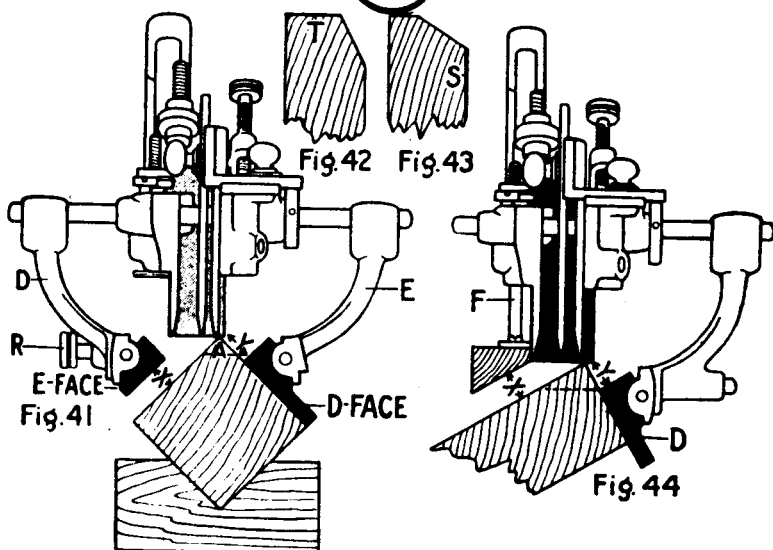
BEADING CONTINUED.

The working of a return bead of a good shape is often a puzzle with the ordinary Wooden Bead Planes. With the "55" the bead is first made on the edge of the board (*Fig. 34*) so that a small quirk is left on the face side, as shown in *Fig. 35*. The bead is then finished by setting the Plane with the depth gauge *F* so adjusted as to exactly take off this superfluous quirk on the face side and no more (*Fig. 36*). This will come easily, as the first part of the bead is worked true from the face side, and the depth gauge will regulate the other part from the same surface.

Figs. 37 and 38 show sections of small mouldings which can be worked on the edges of boards of suitable thickness and then cut off to the thickness required as shown by dotted lines.

Fig. 39 shows how to make round rods of any size by working a bead from both sides of a board. If the board is of the right thickness and the depth gauge set correctly, the rods come off so as to require very little finishing.

In beading Matched Boards (*Fig. 40*) the fence *D* cannot be used as the tongue is not always of the same width. Instead use gauge *J*, placing same in the socket on the front of the Sliding Section. The adjustable bottom on this gauge can be moved under the Sliding Section Runner thus bringing the bead to the edge of the board, if no quirk is desired. In either case it gauges on the edge of the work, above the tongue.



PLAIN CHAMFERS.

For working a right angle chamfer (*Fig. 41*) both fences are used, the wood faces being set at right angles to each other or forty-five degrees with the cutting edge of the cutter.

Where a number of right angle chamfers of the same size are to be made it will be of advantage to change the rosewood faces on the fences, and to change the fences, putting *D* on the right hand side of the Plane and *E* on the left. This will bring the wide face on the bearing side and give the advantage of the fine adjustment (*R*) on the fence used as a gauge. *Fig. No. 41* shows Plane assembled this way.

The width of the cutter should be a little more than the width of the chamfer. Bring the Auxiliary Center Bottom near the center of the cutter and set the Sliding Section so as to form a bearing for the first cut, locating it just inside the corner of the wood *A*. For width of chamfer set the fence so that the distance (*X*) from the fence to the work will be the same as the distance (*Y*) from the corner of the work to the finished chamfer.

For making a chamfer at an odd angle the fences are used as regularly assembled (*Fig. 1*, page 3). Set the rosewood face on fence *D* to the angle required for the bevel of the chamfer (*Fig. 44*). Work from the edge *T* of boards for chamfer as in *Fig. 42* and from the side (*S*) for chamfer as in *Fig. 43*. While fence *E* can be used to gauge the width of chamfer, better results will be obtained by using depth gauge *F* attaching a wood face of proper shape to the bottom of same, as shown in *Fig. 44*.

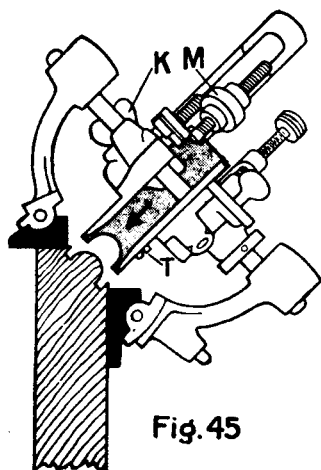


Fig. 45

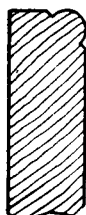


Fig. 46

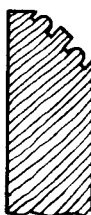


Fig. 47

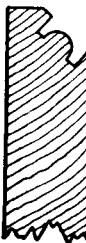


Fig. 48

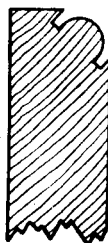


Fig. 49

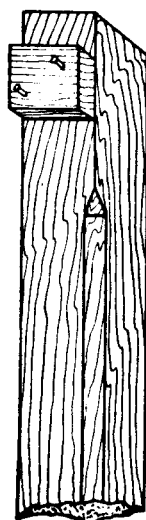


Fig. 50

MOULDED CHAMFERS.

Arrange the Plane as shown in *Fig. 45*, the two fences forming the bottom support and being in contact with the work at all times. Slightly loosen cutter clamp *K* and draw back the cutter before starting the work.

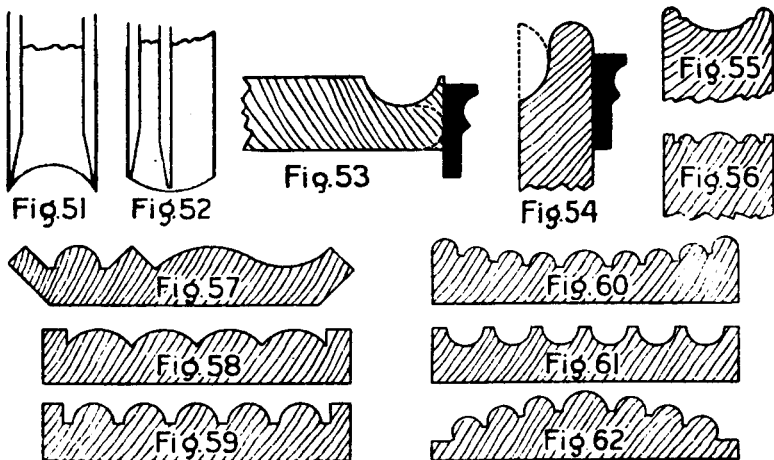
It is necessary as the work progresses to feed down the cutter, as the moulding is made on the face of the chamfer. This can be done by slightly turning the adjusting nut *M* between each shaving. If the fence were used as a gauge, the cutter would move parallel with the face of the stock and the form of the moulding be entirely lost.

It is also necessary to give the cutter an extra support on the Sliding Section to prevent it working to one side. This is done by putting screw *T* in the Sliding Section Runner, bringing the head close up to the cutter. This screw will be found in the Main Stock below the back handle.

The patterns of mouldings shown in *Figs. 46* to *49* can be easily worked in this way by inserting suitable cutters, all being done at one working, except *Fig. 47* which is done in two.

For Stop Chamfering (*Fig. 50*), nail stops on work against which the runners will strike, thus governing the point where chamfer is to begin and end. The Plane should be set and worked as for moulded chamfers (*Fig. 45*) using a straight cutter a little wider than the width of chamfer desired.

In working chamfers, either plain or moulded, it is best to support the wood in notched blocks whenever possible (*Fig. 41*). This permits of the plane being held in a horizontal position.



HOLLOWS AND ROUNDS.

In working *convex* mouldings or Rounds the Main Stock and Sliding Section Runners should be at the extreme points of the cutter (Fig. 51) when they will gauge correctly the thickness of the shaving to be taken off.

In working *concave* mouldings or Hollows, set the adjustable runner on the Sliding Section to form a bearing for the cutter at its lowest point as in Fig. 52.

Thumb mouldings can be worked with the Hollow and Round cutters when curves having a rather large radius are desired. Mouldings having curves of smaller radius can be worked to better advantage with the fluting and beading cutters. First, cut the hollow on the face of the board (Fig. 53) second, form the round on the edge of the board (Fig. 54). The Auxiliary Center Bottom should be used in finishing the round or bead.

The two mouldings shown in Figures 55 and 56 are worked with the Hollow and Round cutters and beading cutters.

In working mouldings such as Fig. 57 the depth gauges and fence can be readily set so as to bring the concave and convex parts of the moulding together, and the correct section accurately obtained.

The mouldings shown in Figs. 58 and 59 are worked from both edges of the board, being careful to work the member farthest from the edge first.

In Fig. 60 the face of the moulding must first be worked to the required curve, but not to a fine finish, and then the rounds worked as in Figs. 58 and 59, changing the wood face on the fence to the proper angle.

Fig. 61 can be worked by using one of the fluting cutters; and Fig. 62 is simply a repetition of Fig. 60 in reverse order, worked in the same way.

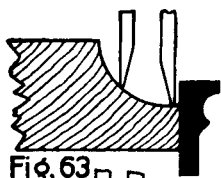


Fig. 63

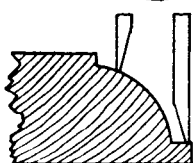


Fig. 66

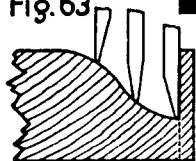


Fig. 64

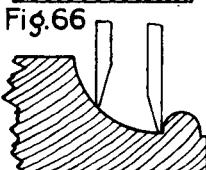


Fig. 67

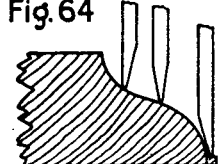


Fig. 65

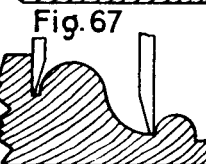


Fig. 68

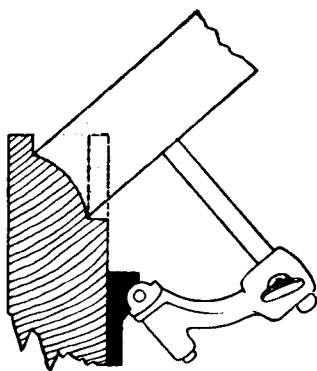


Fig. 69

MOULDINGS.

In working all mouldings it is of the utmost importance that the Fence be kept firmly to the wood but particularly so in working quarter hollows (*Fig. 63*), owing to the tendency of the cutter to force the fence away from the wood, due to the fact that the runners come partly on the curve of the moulding.

In mouldings of these forms the Auxiliary Center Bottom can be used to advantage as an additional support, especially on large mouldings.

With reasonable care, and setting the cutter so that it only takes off a thin shaving, one will find little if any difficulty in forming perfect mouldings. By setting the fence so as to leave a narrow strip of wood between the fence and the cutter as shown in cut of Roman Ogee (*Fig. 64*), the Plane will be much more easily held up to the work. Having completed the moulding, the extra material can be removed with an ordinary Plane.

Reverse Ogees (*Fig. 65*) and Quarter Rounds (*Fig. 66*) having squares or quirks to deal with, can be readily worked without leaving any extra material as shown in *Fig. 64*.

In working the Quarter Hollow with bead (*Fig. 67*) and the Grecian Ogee (*Fig. 68*), the Sliding Section should be brought to the inside of the bead; the bead serving to hold the fence up to the work.

It is possible to make quarter hollow and quarter round mouldings of practically any shape and size and to any angle, by using a hollow or round cutter of suitable size and curve, and setting the rosewood face of the fence to the angle desired (*Fig. 69*), but first the part shown by dotted lines must be rabbetted out and the fence set at exactly the right position to bring the cutter to the angle.

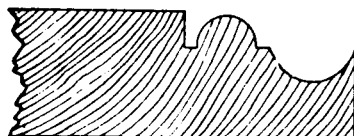


Fig. 70

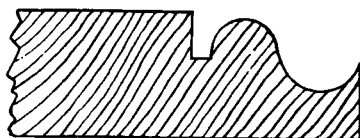


Fig. 71

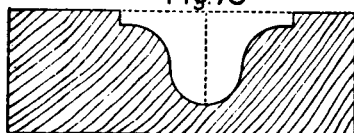


Fig. 72

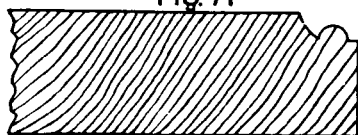


Fig. 73

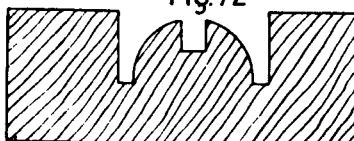


Fig. 74

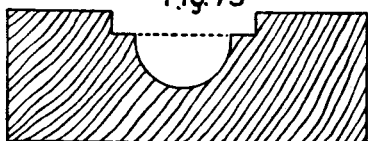


Fig. 75

MOULDINGS CONTINUED.

While the working of mouldings, requiring two or more operations to complete, is easy, care must be used in setting the fence and depth gauges in order that the different members will properly work into each other. If this is not done their symmetrical appearance will be lost.

In *Figs. 70 and 71* are shown the sections of two slightly different mouldings, both of which are formed by the use of a bead and fluting cutter in combination. The only difference in the two mouldings is that, in *Fig. 70* the fence is set so that the beading cutter will leave a small square or quirk between the members, and in *Fig. 71* the fence is set so the two members will join without a quirk, thus forming a continuous curve.

Fig. 72 shows a deep moulding of rather unusual section, made by using one of the Roman Ogees from one edge of the wood, then reversing the wood and using the same cutter from the opposite edge, being careful to set the fence so that the two grooves exactly meet at the bottom, thus forming one moulding.

The small moulding (*Fig. 73*) is suitable for edges of doors and paneling in various kinds of cabinet work. It is made with one of the quarter rounds with bead, the depth gauge *F* being used to prevent the cutter from working down to its full extent.

Fig. 74 is worked with a plow and a beading cutter. The groove should be made first, finishing with the bead. This insures sharp corners at each side of the groove.

Fig. 75 is worked with a wide plow cutter and a fluting cutter. The fluting cutter should be used to make the hollow groove first, in order that the edges of the groove will be sharp on the finished moulding.

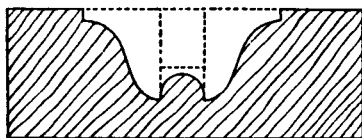


Fig. 76

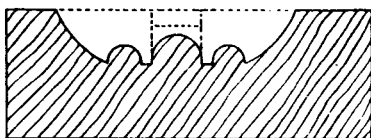


Fig. 77



Fig. 78

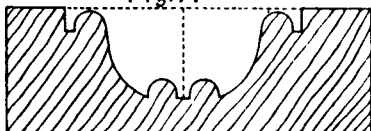


Fig. 79

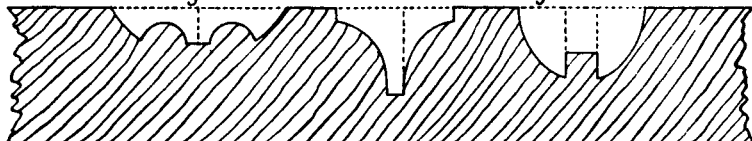


Fig. 80

MOULDINGS CONTINUED.

Fig. 76 shows a moulding similar to *Fig. 72*, but instead of the Ogees coming together, they are divided by a bead. To make this, the Ogees are worked from opposite sides, keeping them far enough apart to leave the width of the bead intact; then reduce the extra stock remaining to the required depth with a plow cutter, and form the bead in the usual way.

Fig. 77 is worked the same as *Fig. 76*, using the quarter round with bead, but not working it to its full depth.

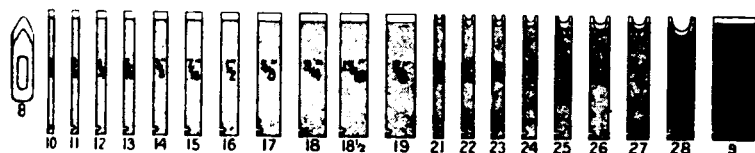
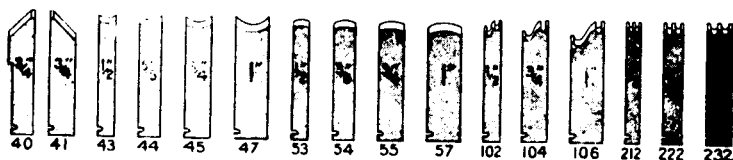
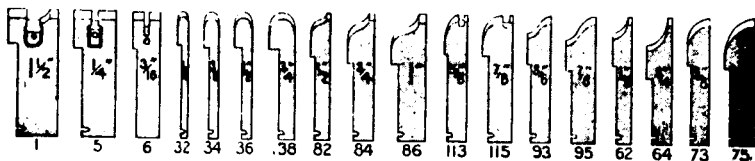
Fig. 78 is worked the same as *Fig. 76*, first using the Ogee from opposite sides but far enough apart to leave room for the two beads which are to be made with a regular beading cutter.

Fig. 79 is made with a Grecian Ogee from both edges of the work, the cutter being worked to its full depth.

Fig. 80 shows three more sections of mouldings; the first from the left being made with the quarter round with bead but not carrying the cutter down to its full depth. The middle one is formed by using the quarter hollow cutter in the same way. The one to the right by the quarter round, the fence being set so that a small upstanding square is left at the bottom. If the square is first made to the proper height with a plow cutter, thus removing some of the waste stock, the working of the quarter rounds will be materially aided.

The depth gauges form important factors in the proper working of these mouldings as it is very evident that if these are not set exactly right, the cutter will damage the first member worked. Both gauges should be used.

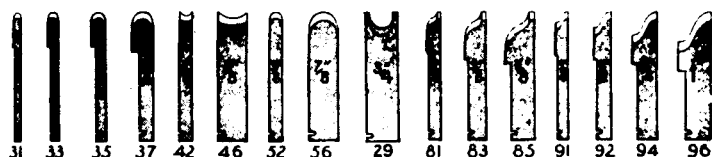
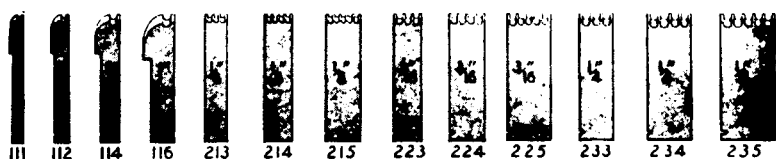
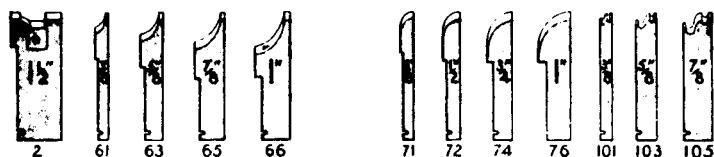
The examples shown are merely to give an idea of the way combination mouldings are formed, and to give the workman suggestions that will enable him to form practically any shape of moulding desired.



REGULAR CUTTERS FOR "55" PLANE.

The following table gives the number, name and price of cutters regularly furnished with each Plane, the numbers corresponding with those of the cutters as shown in the illustration. In ordering it is only necessary to give the number of the cutter wanted.

No.	Size	Style	Each	No.	Size	Style	Each
1	1 1/2 in.	Sash Cutter	\$1 00	40		Chamfer R	\$1 00
5	1 1/4 in.	Match Cutter	1 00	41		" L	1 00
6	3/4 in.	"	1 00	43	1 1/2 in.	Hollow	40
8		Slitting "	60	44	5/8 in.	"	40
9	1 1/4 in.	Filletster "	60	45	3/4 in.	"	40
10	1 1/2 in.	Plow and Dado Cutter	30	47	1 in.	"	40
11	3/4 in.	"	30	53	1 1/2 in.	Round	40
12	1 1/4 in.	"	30	54	5/8 in.	"	40
13	3/4 in.	"	30	55	3/4 in.	"	40
14	3/8 in.	"	40	57	1 in.	"	40
15	1 1/2 in.	"	40	62	1 1/2 in.	Quarter Hollow	90
16	1 1/2 in.	"	40	64	3/4 in.	"	1 00
17	5/8 in.	"	40	73	5/8 in.	Round	90
18	3/4 in.	"	40	75	1 in.	"	1 00
18 1/2	1 1/2 in.	"	60	82	1 1/2 in.	Reverse Ogee	90
19	1 1/2 in.	"	60	84	3/4 in.	"	1 00
21	1 1/2 in.	Beading Cutter	30	86	1 in.	"	1 00
22	1 1/2 in.	"	30	93	5/8 in.	Roman	90
23	1 1/4 in.	"	30	95	3/4 in.	"	1 00
24	1 in.	"	40	102	1 1/2 in.	Grecian	90
25	3/8 in.	"	40	104	3/4 in.	"	1 00
26	1 1/2 in.	"	50	106	1 in.	"	1 00
27	1 1/2 in.	"	50	113	5/8 in.	1/4 Round with Bead	90
28	5/8 in.	"	60	115	3/4 in.	"	1 00
32	1 1/4 in.	Fluting Cutter	60	212	1 1/2 in.	Reeding Cutter 2 Beads	40
34	3/8 in.	"	60	222	3/4 in.	" 2 "	40
36	1 1/2 in.	"	60	232	1 in.	" 2 "	40
38	3/4 in.	"	60				

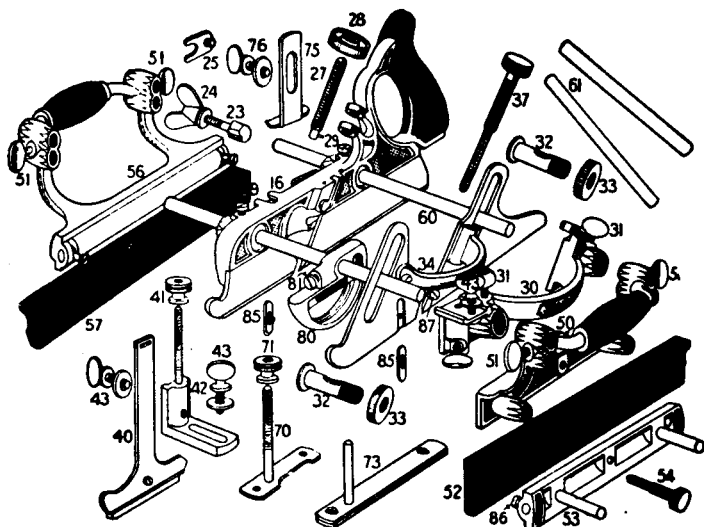


SPECIAL CUTTERS FOR "55" PLANE.

These Cutters are regularly carried in stock and may be ordered by simply specifying the number of Cutter required.

Cutters of practically any form can be used in the Plane, which the owner can make from blanks or order from sketch.

No.	Size	Style	Each	No.	Size	Style	Each
2	1½ in.	Sash Cutter	\$1 00	91	¾ in.	Roman Ogee	\$ 90
29	¾ "	Beading Cutter	60	92	½ "	" "	90
31	¾ "	Plating Cutter	60	94	¾ "	" "	1 00
33	¾ "	" "	60	96	1 "	" "	1 00
35	¾ "	" "	60	101	¾ "	Grecian Ogee	90
37	¾ "	" "	60	103	¾ "	" "	90
42	¾ "	Hollow	40	105	¾ "	" "	1 00
46	¾ "	" "	40	111	¾ " 1¼ "	Round with Bead	90
52	¾ "	Round	40	112	½ " 1¼ "	" "	90
56	¾ "	" "	40	114	¾ " 1¼ "	" "	1 00
61	¾ "	Quarter Hollow	90	116	1 " 1¼ "	" "	1 00
63	¾ "	" "	90	213	1½ "	Reeding Cutter 3 Beads	60
65	¾ "	" "	1 00	214	1½ "	" " 4 "	80
66	1 "	" "	1 00	215	1½ "	" " 5 "	1 00
71	¾ "	Quarter Round	90	223	¾ "	" " 3 "	60
72	¾ "	" "	90	224	¾ "	" " 4 "	80
74	¾ "	" "	1 00	225	¾ "	" " 5 "	1 00
76	1 "	" "	1 00	233	¾ "	" " 3 "	60
81	¾ "	Reverse Ogee	90	234	¾ "	" " 4 "	60
83	¾ "	" "	90	235	¾ "	" " 6 "	1 00
85	¾ "	" "	1 00				



PARTS OF "55" PLANE.

In the illustration the parts of the Plane are clearly shown as near their position in relation to the Main Stock as possible. In ordering repair parts for "55" Plane, give only the number of part wanted, no further description being necessary.

Name of Part	Each	No.	Name of Part	Each
1 Cutters (per set)	\$12 00	51 Fence Thumb Screws, each	20	
6 Main Stock or Bottom	6 00	52 Tilting Guard Plate (Wood)	40	
23 Cutter Bolt	30	53 " Iron with Swivel	80	
24 " " Wing Nut	30	54 Left Fence Adjusting Screw	40	
25 " " Clip and Screw	10	56 Right Fence	2 00	
27 " Adjusting " "	20	57 " " Tilting Plate	40	
28 " " " Nut	20	58 Screws " " " "	20	
29 Arm Set Screws, each	20	60 Long Arms (per pair)	1 00	
30 Sliding Section	1 50	61 Short " " " "	50	
31 " " Thumb Screw	20	70 Adjustable Depth Gauge	40	
32 Thimble	30	71 " " " Nut	20	
33 " Check Nut	30	73 " Beading Stop	60	
34 Adjustable Bottom	2 50	75 Slitting Cutter Stop	20	
37 " " Screw	40	76 " " Thumb Screw	20	
40 Auxiliary Center Bottom	60	80 Cam Stop	80	
41 Center Bottom Adj. Nut	20	81 " " Set Screw	20	
42 Angle Iron and " Screws	60	85 Spurs with Screws	10	
43 Angle Iron Thumb Screw	20	86 Rosewood Face Set Screw	20	
60 Left Fence	2 70	87 Cutter Stop Screw	20	